

REMARKS

Applicants request favorable reconsideration of the subject application in view of the foregoing amendments and the following remarks.

Claims 1, 2, 5, 6, 8, and 11-19 are pending in the present application, with claims 1, 11, 14, 16, and 19 being the independent claims. Claims 3, 4, 7, 9, and 10 have been cancelled without prejudice to or disclaimer of the subject matter previously recited therein. Claims 1, 2, 5, 6, 8, and 11-19 have been amended herein. Support for the amendments to the claims may be found in original claims 4 and 7 as well as in the specification as originally filed, for example, from page 15, line 3 to page 19, line 11; and in the Examples. Accordingly, no new matter has been added.

Claims 1-19 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,306,994 B1 (Donald et al.), or, in the alternative, as being unpatentable over the Donald et al. patent. These rejections are respectfully traversed.

As recited in the independent claim 1 of the present application, a block polymer compound has at least three block segments comprising block segments A, B, and C arranged in succession, wherein the block segment C is most hydrophilic while the block segment A is most hydrophobic, the block segment C has an ionic group or an acidic group, and the block segment C is a repeating unit represented by general formula (1). The other independent claims include analogous features.

In the triblock polymer ABC of the present claimed invention, the block segment A is most hydrophobic and the block segment C is most hydrophilic, and the hydrophilicity of the block segments increases in the order of $A < B < C$. With the present invention, when a block polymer forms a micelle with a functional material, block segments B and C can become a

hydrophilic portion of the micelle. Consequently, the length of the hydrophilic portion of the micelle whose outermost segment is the block segment C is long, so that good dispersibility can be obtained. Additionally, with the block segment C being the outermost segment of the micelle and having a repeating unit represented by the general formula (1), good dispersibility can be obtained. Moreover, by using the triblock polymer ABC, a polymer-containing composition and an ink composition having good fixability and good environmental fastness can each be provided. The remarkably advantageous effects of the present invention can be seen from the present specification, for example, in the results of the Examples and the Comparative Examples.

Donald et al. discloses a block polymer having an ABC structure consisting of a hydrophilic block, a hydrophobic block, and a tuning block, wherein the hydrophobic block is interposed between the hydrophilic block and the tuning block. The tuning block may include both hydrophilic and hydrophobic blocks.

However, Donald et al. does not specifically disclose that the hydrophilicity of the block polymer increases in the order of $A < B < C$. Applicants submit that Donald et al. does not teach or suggest block segments A, B, and C arranged in succession, wherein the block segment C is most hydrophilic while the block segment A is most hydrophobic, as required by the independent claims of the present invention. Further, Donald et al. fails to teach or suggest that block C is a repeating unit represented by general formula (1) as recited in the claims. Donald et al. discloses the general formula of the monomer of the hydrophilic block segment, as well as specific examples of the repeating unit thereof, all of which are distinguishable from the general formula (1) of the present invention. Thus, the polymer of Donald et al. is structurally different from the block polymer of the present claimed invention.

In view of the above, Applicants submit that the independent claims patentably distinguish the present invention over the Donald et al. patent. Reconsideration and withdrawal of the §§ 102 and 103 rejections of the claims are therefore requested.

The dependent claims are also submitted to be patentable, due to their dependency from the independent base claims, as well as due to additional features that are recited.

Applicants submit that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

Applicants' undersigned attorney may be reached in Washington, D.C. by telephone at (202) 530-1010. All correspondence should continue to be directed to the address given below.

Respectfully submitted,

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